Notice of Allowability	Application No.	Applicant(s)	
	10/808,113	HILDEBRAND ET AL.	
	Examiner	Art Unit	
	David P. Stitzel, Esq.	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *June 16, 2006*.

2. ☒ The allowed claim(s) is/are *1-12 and 21-37*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/26/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *6/22/06* .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

OFFICIAL ACTION

Acknowledgment of Receipt

Receipt of the Applicant's Response, to the Official Action dated November 16, 2005, as well as Proposed Claim Amendments and Supplemental Proposed Claim Amendments, which were received on June 5, 2006 and June 16, 2006, is acknowledged.

Examiner's Statement of Reasons for Allowance

Claims 1-12 and 21-30 of the instant invention are drawn to a process for preparing an injectable pharmaceutical composition comprising gabapentin and a pharmaceutically acceptable vehicle, wherein said process comprises heating said injectable pharmaceutical composition to a temperature of greater than or equal to 105°C.

None of the following references:

U.S. Patent 4,024,175 (the Satzinger '175 patent);
U.S. Patent 4,960,931 (the Butler '931 patent);
U.S. Patent 5,068,413 (the Steiner '413 patent);
U.S. Patent 5,603,894 (the Aikus '894 patent);
U.S. Patent 6,046,353 (the Grote '353 patent);
U.S. Patent 6,054,482 (the Augart '482 patent);
International Patent Application Publication WO 01/58881 (the Carter '881 publication);
U.S. Pre-Grant Patent Application Publication 2002/0198261 (the Kulkarni '261 publication);
U.S. Patent 6,521,787 (the Bosch Llado '787 patent);
U.S. Patent 6,528,682 (the Bosch Llado '682 patent); and
U.S. Pre-Grant Patent Application Publication 2003/0092933 (the Chen '933 publication)

disclose, teach or suggest a process for preparing an injectable pharmaceutical composition comprising gabapentin and a pharmaceutically acceptable vehicle, wherein said process comprises heating said injectable pharmaceutical composition to a temperature of greater than or equal to 105°C.

More specifically, although the Carter '881 publication teaches heat sterilization via autoclaving injectable compositions comprising a pyrimidine derivative in combination with an

additional therapeutic agent, namely gabapentin, which is present in a long laundry list of other therapeutic agents (page 10, line 3; page 28, lines 1-6), the Carter '881 publication utterly fails to not only mention the heat sensitivity of gabapentin, but also recognize the extreme toxicity associated with the corresponding undesired lactam, which is produced by decomposition and lactamization of said gabapentin upon exposure to heat. In fact, the Augart '482 patent teaches that the corresponding lactam of gabapentin is astonishingly more than 26 times more toxic than gabapentin (column 4, lines 50-57). As a result, it is not surprising that numerous references, such as the Augart '482 patent (column 5, lines 66-67; column 6, lines 1-6), the Grote '353 patent (column 14, line 45; column 16, lines 3-9 and 30-34) and the Kulkarni '261 publication ([0076], [0077], [0079]), teach away from exposing gabapentin to heat, so as to substantially minimize formation of the highly undesirable and extremely toxic corresponding lactam. Furthermore, the Kulkarni '261 publication teaches that liquid formulations of gabapentin undergo cyclization to the corresponding undesired lactam much more readily than when said gabapentin exists in a solid state and that as a result, pharmaceutical compositions of gabapentin have historically been limited to solid dosage forms, such as capsules and tablets ([0010]-[0012]). It should be noted that although an object of the invention disclosed in the Kulkarni '261 publication is to provide a liquid pharmaceutical composition comprising gabapentin for not only oral administration, but more importantly parenteral administration, Kulkarni '261 publication does not teach a process for preparing an injectable pharmaceutical composition comprising gabapentin and a pharmaceutically acceptable vehicle, wherein said process comprises heating said injectable pharmaceutical composition to a temperature of greater than or equal to 105°C ([0014], [0068], [0076]-[0079]).

In addition, other references teach processes for obtaining gabapentin in a highly purified crystalline form that involve exposure to various degrees of heating for various periods of time. For

example, the Butler '931 patent (abstract; column 3, lines 62-66; column 4, lines 5-14), the Bosch Llado '682 patent (abstract; column 3, lines 50-67; column 4, lines 1-7 and 66-67; column 5, lines 1-2), and the Chen '933 publication ([0016], claims 1, 2, 6 and 7), teach processes for obtaining highly purified, pharmaceutical grade gabapentin in crystalline form, wherein said processes comprise heating gabapentin monohydrate at various temperatures for various periods of time. As such, these references merely teach process steps for obtaining a highly purified therapeutic starting material, namely pharmaceutical grade gabapentin, which is in a crystalline form and thus not suitable for injection. However, none of the aforementioned references teach a process for preparing an injectable pharmaceutical composition comprising gabapentin and a pharmaceutically acceptable vehicle, wherein said process comprises heating said injectable pharmaceutical composition to a temperature of greater than or equal to 105°C.

In light of the foregoing discussion regarding the instant invention and the state of the art at the time the instant application was filed, the instantly claimed invention as a whole is deemed to be patentable over the prior art because the prior art fails to disclose, teach or suggest a a process for preparing an injectable pharmaceutical composition comprising gabapentin and a pharmaceutically acceptable vehicle, wherein said process comprises heating said injectable pharmaceutical composition to a temperature of greater than or equal to 105°C.

Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and should preferably accompany the issue fee, so as to avoid processing delays. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to David P. Stitzel, M.S., Esq., whose telephone number is 571-272-8508. The Examiner can normally be reached on Monday-Friday, from 7:30AM-6:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Johann Richter, Ph.D., Esq., can be reached at 571-272-0646. The central fax number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published patent applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished patent applications is only available through Private PAIR. For more information about the PAIR system, please see http://pair-direct.uspto.gov. Should you have questions about acquiring access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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